

**REMARKS**

This Amendment is filed in response to the Final Office Action mailed March 30, 2010 in connection with a Request for Continued Examination. The Applicant respectfully requests reconsideration. All objections and rejections are respectfully traversed.

Claims 1-13 and 15-40 are pending in the application.

Claims 1, 8, 10-12, 15, 17, 21-23, 34, 38 and 39 have been amended.

Claim 14 has been cancelled.

***Response to Examiner's Response to Arguments***

At paragraph 3 of the Final Office Action, the Examiner responds specifically to the Applicant's previous arguments. The Applicant appreciates this specific response, and would like to respond specifically in turn, in hopes agreement may be reached.

It appears from paragraph 3 of the Final Office Action that the Examiner is likening the claimed "work package," that includes at least one constructible element and work steps, to the data structure shown in Fig. 4 of Schwegler '468 where a Schedule Item named "Pour Concrete Columns-NE" has a "Start Date" and a "End Date," and/or to the model display of Fig. 7a of Schwegler '468 where schedule items including start/end dates are shown in a box. The Applicant respectfully urges that neither portion of Schwegler '468 suggests what is claimed.

Even if the data structure shown in Fig. 4 of Schwegler '468 is likened to a "work package" (an interpretation the Applicant traverses), Schwegler '468 does not suggest receiving a selection of a visual display of the data structure of Fig. 4 in a graphical user interface along with an indication of sequencing to apply to the data structure relative to a plurality of other similar data structures. Accordingly, Schwegler '468 may not fairly be interpreted as teaching the Applicant's claimed ***"receiving a selection in the graphical user interface of a visual display of the work package and an indication of a sequencing to apply to the work package with respect to a plurality of other work packages, which each comprise at least one constructible element and at least one work***



*step.*” See amended claim 1. The data structure shown in Fig. 4 of Schwegler ‘468 appears to be a representation of what is contained in the memory of a computer, not something that may be selected in a graphical user interface. A user cannot select the data structure shown in Fig. 4 of Schwegler ‘468, and indicate a relative sequencing of such data structure with respect to other similarly data structures.

Similarly, even if the model display of Fig 7a of Schwegler ‘468 is likened to a “work package” (an interpretation the Applicant traverses), Schwegler ‘468 does not suggest receiving a selection of the model display of Fig 7a in a graphical user interface along with an indication of sequencing to apply to the model display of Fig 7a relative to a plurality of other similar model displays. Accordingly, Schwegler ‘468 may not fairly be interpreted as teaching the Applicant’s claimed ***“receiving a selection in the graphical user interface of a visual display of the work package and an indication of a sequencing to apply to the work package with respect to a plurality of other work packages, which each comprise at least one constructible element and at least one work step.”*** See amended claim 1. A user in Schwegler ‘468 does not appear to sequence “packages” that include all the information shown in Fig. 7a. Rather, a user in Schwegler ‘468 appears to create schedule items that include the desired start/end times and then link them to components. See Schwegler ‘468 col. 4, lines 12-16. A user does not appear to select some type of visual display of a combined schedule item/component and then sequence it with other similarly items.

Further, Schwegler also does not suggest the claimed ***“receiving a selection in the graphical user interface of a visual display of the work package and an indication of a sequencing to apply to the work package with respect to a plurality of other work packages, which each comprise at least one constructible element and at least one work step.”*** As discussed in more detail below, Schwegler merely describes that it is desirable to have “[e]ffective staging and sequencing of work.” See Schwegler page 11-6, 3<sup>rd</sup> full paragraph. Schwegler makes no mention of selecting any sort of visual display of a “work package” that includes both at least one constructible element and at least one work step, and sequencing such a “work package” with other similar “work packages.”



Accordingly, as discussed in more detail further below, the Applicant respectfully requests reconsideration.

***Claim Rejections - 35 U.S.C. §103***

At paragraphs 4-5 of the Final Office Action, claims 1, 2, 4, 6-8, 13-17, 19-22 and 26-40 were rejected under 35 U.S.C. §103(a) over Schwegler et al., “New Information Technology Tools Enable Productivity Improvements,” 2000 North American Steel Construction Conference Proceedings, 2000, pages 11-3 to 11-20 (hereinafter “Schwegler”) in view of Schwegler, Jr. et al., U.S. Patent No. 7,042,468 (hereinafter “Schwegler ‘468”).

The Applicant’s claim 1, representative in part of the other rejected claims, sets forth (emphasis added):

1. (CURRENTLY AMENDED) A method for managing a construction project comprising:
  - generating, by one or more central processor units (CPUs) executing an application, a computerized simulation model for the construction project representing project materials in the construction project;
  - mapping the project materials represented in the computerized simulation model into constructible elements;
  - displaying the constructible elements as three-dimensional objects in a graphical user interface;
  - determining at least one work step for each constructible element;
  - receiving a selection in the graphical user interface of at least one constructible element represented as a three-dimensional object to create a work package in the computerized simulation model, the work package comprising the at least one constructible element and the at least one work step for the at least one constructible element; and
  - receiving a selection in the graphical user interface of a visual display of the work package and an indication of a sequencing to apply to the work package with respect to a plurality of other work packages, which each comprise at least one constructible element and at least one work step.***



Schwegler discusses a 4D modeling tool that “allows design and construction professionals to review and change the design and corresponding construction schedule at several levels of detail and in a variety of computing environments....” *See* Schwegler page 11-4, 3<sup>rd</sup> full paragraph. Schwegler comments that “[e]ffective staging and sequencing of work enables efficient use of resources and minimizes the waste of labor and materials. Interactive 4D models should respond to these practical needs by displaying not only the installation of components in the 3D model in their final position, but also by supporting a realistic evaluation of a proposed construction schedule.” *See* Schwegler page 11-6, 3<sup>rd</sup> full paragraph.

Schwegler ‘468 discusses a 4D modeling tool that has “the ability to overlay text in 2D or 3D on an animated 4D simulation to give the viewer of the 4D model additional information about the activities that are displayed in 4D simulation.” *See* Schwegler ‘468 col. 2, lines 34-39. First “linkages are created between schedule items and the 3D components that those schedule items affected, see FIG. 4.” *See* Schwegler ‘468 col. 4, lines 14-16. Once these linkages are established a time based simulation may be displayed. “As the simulation steps through time, the 4D model graphically shows the activities in their scheduled sequence by highlighting the building components that are being worked on by the activities.” *See* Schwegler ‘468 col. 3, lines 33-39 and col. 4, lines 52-28.

The Applicant respectfully urges that both Schwegler and Schwegler ‘468 are silent concerning the Applicant’s claimed “***receiving a selection in the graphical user interface of a visual display of the work package and an indication of a sequencing to apply to the work package with respect to a plurality of other work packages, which each comprise at least one constructible element and at least one work step.***”

While the Applicant receives a selection in a graphical user interface of a visual display of a work package (that comprises at least one constructible element and at least one work step) and an indication of a sequencing to apply to the work package with respect to a plurality of other work packages, which also each comprise at least one constructible element and at least one work step), neither Schwegler nor Schwegler ‘468, re-



ceive selections of visuals displays of things akin to a “work package” and then sequence things akin to a “work package.”

As discussed above, the Examiner appears liken the claimed “work package” that includes at least one constructible element and work steps to the data structure shown in Fig. 4 of Schwegler ‘468 where a Schedule Item named “Pour Concrete Columns-NE” has a “Start Date” and a “End Date” and/or to the model display of Fig. 7a of Schwegler ‘468 where schedule items including start/end dates are shown in a box.

However, even if the data structure shown in Fig. 4 of Schwegler ‘468 is likened to a “work package” (an interpretation the Applicant traverses), Schwegler ‘468 does not suggest receiving a selection of a visual display of the data structure of Fig. 4 in a graphical user interface along with an indication of sequencing to apply to the data structure relative to a plurality of other similar data structures. The data structure shown in Fig. 4 of Schwegler ‘468 appears to be a representation of what is contained in the memory of a computer, not something that may be selected in a graphical user interface. A user cannot select the data structure shown in Fig. 4 of Schwegler ‘468, and indicate a relative sequencing of such data structure with respect to other similarly data structures.

Similarly, even if the model display of Fig 7a of Schwegler ‘468 is likened to a “work package” (an interpretation the Applicant traverses), Schwegler ‘468 does not suggest receiving a selection of the model display of Fig 7a in a graphical user interface along with an indication of sequencing to apply to the model display of Fig 7a relative to a plurality of other similar model displays. A user in Schwegler ‘468 does not appear to sequence “packages” that include all the information shown in Fig. 7a. Rather, a user in Schwegler ‘468 appears to create schedule items that include the desired start/end times and then link them to components. *See* Schwegler ‘468 col. 4, lines 12-16. A user does not appear to select some type of visual display of a combined schedule item/component and then sequence it with other similarly items.

Accordingly, Schwegler ‘468 may not fairly be interpreted as teaching the Applicant’s claimed *“receiving a selection in the graphical user interface of a visual*



***display of the work package and an indication of a sequencing to apply to the work package with respect to a plurality of other work packages, which each comprise at least one constructible element and at least one work step.”***

Further, the deficiencies of Schwegler ‘468 are not remedied by combination with Schwegler. Schwegler merely describes that it is desirable to have “[e]ffective staging and sequencing of work.” *See* Schwegler page 11-6, 3<sup>rd</sup> full paragraph. Schwegler makes no mention of selecting any sort of visual display of a “work package” that includes both at least one constructible element and at least one work step, and sequencing such a “work package” with other similar “work packages.” Merely stating some result is desirable does not suggest what the Applicant claims.

Accordingly, the Applicant respectfully urges that the combination of Schwegler and Schwegler’ 468 is legally insufficient to make obvious the present claims under 35 U.S.C. §103(a) because neither reference teaches or suggests the Applicant’s claimed novel ***“receiving a selection in the graphical user interface of a visual display of the work package and an indication of a sequencing to apply to the work package with respect to a plurality of other work packages, which each comprise at least one constructible element and at least one work step.”***

At paragraphs 6 of the Final Office Action, claims 3, 5, 9-12, 19 and 23-25 were rejected under 35 U.S.C. §103(a) over Schwegler and Schwegler ‘468, in further view of Kroeger, U.S. Publication No. 2002/0165723 (hereinafter “Kroeger”).

The Applicant notes that claims 3, 5, 9-12, 19 and 23-25 are dependent claims that depend from independent claims believed to be allowable for at least the reasons discussed above. Claims 3, 5, 9-12, 19 and 23-25 are believed to be allowable due to their dependency, as well as for other separate reasons.

In the event that the Examiner deems personal contact desirable in disposition of this case, the Examiner is encouraged to call the undersigned attorney at (617) 951-2500.



In summary, all the independent claims are believed to be in condition for allowance and therefore all dependent claims that depend there from are believed to be in condition for allowance. The Applicant respectfully solicits favorable action.

Please charge any additional fee occasioned by this paper to our Deposit Account No. 03-1237.

Respectfully submitted,

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